Native Healing in Alaska

Report From Serpentine Hot Springs

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Traditional Alaskan Native healing practices, specifically sweat bathing and hot springs bathing, have medical connotations in that they involve sociocultural factors important to practicing medicine among Alaskan Native people. At Serpentine Hot Springs in northwest Alaska, relief for arthritis, back pain, hip pain, headaches, skin rashes and other disorders was sought. The "treatment setting" was an informal bathhouse and bunkhouse and Eskimo tribal doctors and patients were assigned tasks related to healing. Continuity with traditional cultural patterns was achieved in several ways: meals tended to be traditional Eskimo fare, the predominant language spoken was Inupiaq and styles of interaction were Inupiat in character. All patients showed improvement. The experience reported herein is instructive for those seeking innovative approaches treating Native American groups.

The Alaskan Native population today exceeds 64,000, including Eskimo (Inupiat and Yupik), Aleut, Athabascan and Tlingit people. Before and during the Russian presence in Alaska in the late 1700s, the indigenous people depended on their knowledge of anatomy, herbal medicine and other healing practices for the maintenance of health. Laughlin describes the following healing practices among Aleuts before Russian contact:

> The essential facts with which we must deal are: the existence of surgical skill, including suturing, removal of stone points, amputation, ligation, opening of the abdominal cavity; acupuncture, including the use of both fixed points and those determined by the individual case; blood letting, both annual and occasional; considerable skill in delivery of malposed foetuses, breach [*sic*] deliveries, etc.; massage applied commonly and rigorously, more often by women; the use of herbal hotpacks, sometimes in the sweatbath; and the use of a variety of herbals.[1(p132)]

After the United States government purchased the territory of Alaska from Russia in 1867, Western-trained medical practitioners became an increasingly important source of health care, particularly in combatting epidemic diseases introduced to the indigenous population at contact. Simultaneously, shamanistic beliefs and practices were discouraged in favor of Christian beliefs. In the 1950s the US Indian Health Service built hospitals in rural areas of Alaska and the territorial government began sending public health nurses to Alaskan Native villages. Despite a growing dependence on Western-trained medical practitioners, some traditional Native healing arts persisted.

As Western medicine curbed infectious diseases and reduced infant mortality, behaviorally based health problems emerged as the leading causes of death and disability in Alaska. Today, violence—accidents, suicide, homicide, alcoholism—is the number one killer in Alaska and alcoholism is the number one health problem.[2] Health professionals and community leaders are looking beyond the Western-oriented health care delivery system for innovative solutions to these complex problems. Experiments integrating traditional Native healers into the health care delivery system have been initiated in Alaska, planting the seeds for a cultural revitalization of Native Alaskan healing arts.[3-9]

We describe the contemporary use of hot springs as a place for healing in an Eskimo social context. Our report introduces traditional Alaskan Native practices that have medical connotations and illustrates sociocultural factors that are important to practicing medicine among Alaskan Native people. The experience we

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relate is instructive for those seeking innovative approaches to treating Native American and ethnic groups.

History of Hot Springs and Sweat-Bath Use in Alaska

More than 120 natural hot springs have been identified in Alaska; however, very little information is available on the use of hot springs by Native peoples. A few archaeologic and historic mining sites near hot springs have been described.[10,11] One report indicates that Indians traveled hundreds of miles to use the springs.[11] Traditionally, the Tlingit Indians used hot springs in southeast Alaska for bathing.[11] Despite these reports there have been no direct observations published regarding Native use of hot springs in Alaska for bathing or healing.

Whereas the antiquity, geographic distribution and importance of sweat bathing vary between cultural groups, the use of dry heat and steam heat baths by Native Alaskan and Canadian peoples is well reported throughout the arctic and subarctic regions.[12-23] Sweat bathing, as Lantis noted among northern Alaskan Eskimos, "was both a common means of secular and ceremonial cleansing and also a social institution."[13(pp107-108)]

The southwest Alaskan Eskimo *kashim,* or ceremonial house, typifies the use of sweat baths among Alaskan Eskimos. The kashim was not only a dance house, but a workshop, sweathouse, eating place and often the sleeping place of the unmarried men.[13] Guests from neighboring villages attending festivals would also be housed there. As Lantis observed, "The kashim was a broad institution in Alaska Eskimo culture. Besides being the place in which almost all festivals were held, the kashim figured in many everyday aspects of Eskimo life."[13(p105)] Communal sweat baths were taken for ritual purification before, during and after ceremonies, even though they were not an integral part of the ceremonies themselves.[13] In the absence of ceremonial occasions, the sweat bath provided a social occasion that often included dancing, singing songs about ancestors and great events, telling stories and sometimes feasting.[13,23]

Sweat bathing in Alaska is reported to have ethnomedical connotations, including relief from rheumatism, arthritis and sore joints or limbs[8,9,16,20]; relief from colds or sinus infection[16]; relief from dry skin or insect bites[24]; reduction of psychological stress,[16] and enhancement of general well-being.[13,23]

> There is an additional aspect of bathing which is difficult to characterize; this is the intoxicating effect of extremely hot baths. Leaving the stifling steam room, one is sometimes lightheaded, lacks full coordination, and may not be able to speak plainly for a few minutes.[16(pp129-130)]

Marsh and Laughlin[14] found indications that Aleuts at one time practiced surgical procedures in the sweat baths.

Native populations in the northern forests had adequate wood resources for sweat bathing. In the arctic, however, sweat baths required the use of driftwood, a relatively scarce resource on the Alaskan tundra. In describing ceremonies on Nunivak Island, Lantis commented regarding the custom of a father celebrating the birth of his child by giving a sweat bath for the men: "Since driftwood was valuable and had to be bought from those who had some at the time, this did represent a small outlay of weath."[13(p49)] In a later work, Lantis noted that "Certainly, the tundra villages did not have enough fuel for the weekly bath that many villages in the Bethel area now expect."[15(pp38-39)] In contrast, hot springs represent an unlimited geothermal energy resource. Yet, few Native communities have been located at the site of hot springs. Factors such as the availability of fish and game and transportation corridors, such as rivers, were more important determinants of settlement location in the arctic than an abundance of heat.

Data that follow on the contemporary Eskimo uses of Serpentine Hot Springs suggest a commonality with sweat bathing. Both institutions are multipurpose, having social, hygienic and healing functions. In both the kashim and the hot springs, activities are segregated by sex. The body temperature is raised in a hot bath, a steam bath and a dry heat bath, presumably resulting in similar physiologic phenomena.

Serpentine Hot Springs Bathing

Located in a hidden river valley 160 km (by airplane) north of Nome on the Seward Peninsula in northwest Alaska, Serpentine Hot Springs takes its English name from either the Serpentine River into which flow the clear waters from Hot Springs Creek or from the dramatic boulders scattered like sentries on the ridgetops guarding the cul-de-sac valley below. The springs erupt in two hot pools about 795 m apart. Although the water does not taste noticeably mineralized,[25] it has a hydrogen sulfide odor and a high mineral content.

Iyat is the Eskimo name for Serpentine Hot Springs, which means "cooking pot" or "a site for cooking." The surface temperature of the water has been measured at 60°C to 77°C (140°F to 170°F) and the mean reservoir temperature has been calculated to be 132 ±12°C (270°F).[26] The name Iyat, however, apparently derives from the spiritual activities believed to have occurred at Serpentine Hot Springs, rather than the shape or heat of the spring (notes by William Sheppard, anthropologist, Cooperative Parks Studies Unit, University of Alaska, Fairbanks, from Hot Springs Session, 1980 Bering Straits Elders' Conference).

The history of the Serpentine Hot Springs is derived from a few published reports by geologists exploring the region at the turn of the century[25,27,28] and recent attempts to record oral traditions, most of which are unpublished. Although gold was present in the Serpentine River area, gold mining was not considered profitable there at the turn of the century.[28] Nevertheless, miners from the Seward Peninsula used the hot springs as a relatively warm place for wintering. The first white person reached the hot springs in May 1900, traveling by dog team with a group of Eskimo assistants.[27] By September 1901 there was a small settlement with

buildings and gardens that the prospectors called "Arctic Hot Springs."[25,27] About 1915 they built a cabin near the upper spring and a bathhouse over a bathing pool 3.0 to 3.7 m in diameter.[25]

Jack Ningeulook, an Inupiat Eskimo informant from Shishmaref born in 1903, told Sheppard (field notes of William Sheppard, 1979) that the first time he had visited Serpentine Hot Springs was in 1915. He was herding reindeer with his uncle in the region. According to this informant, the miners first started using the hot springs for healing purposes and later the Eskimos followed the miners' example and used it for their own healing. According to another Eskimo elder, when the Eskimos became Christians they were freed from the influences Eskimos had believed controlled the hot springs (unpublished report from Hot Springs Session at 1980 Bering Straits Elders' Conference).

Documented oral accounts of curative uses of Serpentine Hot Springs among the Eskimos extend only to 1929, when one man recalled a group from Kotzebue traveling by dog team to Serpentine Hot Springs (William Sheppard's notes from 1980 Bering Straits Elders' Conference). Sheppard records the following story told by Jack Ningeulook about events that took place in 1935:

> Jack's cousin in Espenberg was very sick and could not walk. He got in touch with Jack and asked him to take him to the hot springs. Jack took him to the hot springs in a reindeer sled drawn by four deer. His cousin stayed on the sled wrapped in a sleeping bag. It took a week to reach the hot springs. He and his cousin stayed at the hot springs four weeks—until they ran out of food. At the end of that period of time, his cousin could walk a little bit (Sheppard's field notes, 1979).

Other Eskimo elders recall the early use of Serpentine Hot Springs by people from Deering and Shishmaref (William Sheppard's notes from 1980 Bering Straits Elders' Conference). Currently people visit Serpentine Hot Springs throughout the year. Local people believe that the water is "stronger" and contains more minerals during the winter before it is diluted by melted snow (personal communication, Augie Hoffman, Project Manager, Traditional Health Program, Maniilaq Association, September 12, 1983). People from Shishmaref use the hot springs for recreational and medicinal purposes during the time of the year when there is adequate snow cover for travel by foot, sled or snow machine and sufficient daylight hours to facilitate travel (unpublished report by Laurel Bland for Cooperative Parks Studies Unit, University of Alaska, Fairbanks).

Recently Maniilaq, the Native nonprofit corporation for the Kotzebue area, has organized groups to travel to Serpentine Hot Springs. Under the leadership of well-known Eskimo practitioner Della Keats,[3-5] small groups of patients journey to Serpentine Hot Springs twice a year for several days of soaking, curing, teaching and socializing. In June 1981 one of us (S.K.), a WAMI medical student, was invited by Maniilaq to accompany one of these groups. His role as a participant-observer enabled him to gather data that are the basis for the following description of current uses of Serpentine Hot Springs.

Healing Experience at Serpentine Hot Springs

After the spring thaw, it is possible to land small airplanes on a packed-clay landing strip located on a hillside south of the springs. The 15 persons (seven male and eight female) who came to Serpentine Hot Springs in June 1981 under Maniilaq sponsorship chartered a small aircraft from Kotzebue to make four trips to transport persons and supplies for a week-long visit. Whereas some lived in Kotzebue, others lived in surrounding villages. Two participants came from as far away as Anchorage and the Yukon-Kuskokwim delta in southwest Alaska. All (except S.K.) were Eskimo and spoke either Inupiaq or Yupik as their first language, though all could also speak English. The group, ranging in age from 5 to 76 years, included three Eskimo healers (Della Keats, Andrew Skin and Evelyn Barr), 11 adults seeking relief from physical problems, one first-year medical student participant-observer and one young child.

Medical problems for which people sought cures at Serpentine Hot Springs included arthritis, back pain, hip pain, headaches, skin rashes, strained muscles and other problems. Several of the participants had multiple problems. Most of the participants had already sought assistance from other sources, including Western-trained physicians and Eskimo medical practitioners, as shown in the following narratives:

> G, a 70-year-old man, fell into an ice hole while fishing in February and hurt his hip. He went to hospital in an ambulance because he couldn't walk. The doctors gave him pills and sent him home. "I threw 'em away," G reported. "The white doctors spend no time with you, they just give you pills. I stopped going to see them at the hospital." Five months later his hip was still painful and he came to Serpentine Hot Springs.

> D, a 21-year-old woman, hurt her back while jumping on a trampoline one year before. She had attempted to do a flip on the trampoline and landed wrong. A few months later, she sought assistance from an Eskimo healer who let blood from her lower back, which eased her pain. She came to Serpentine Hot Springs expecting to have her lower back "poked" again; but the Eskimo medical practitioners at the Serpentine Hot Springs retreat do not treat lower back pain in that manner. In addition to using the hot water and a sweating regimen to heal her back, she said she used the spring water to help her sinuses, to soak her eye and to drink for improved health.

There are two buildings at Serpentine Hot Springs: a bunkhouse for eating and sleeping and the bathhouse which has a plank-lined pool. Water from the hot springs and from a cool creek flows into the pool through pipes, which regulates the temperature of the pool. Bath water is replaced continuously as the pool drains to the creek downstream.

The daily regimen at Serpentine Hot Springs organized during the healing program reported here is centered on bathing, eating and sleeping. Usually three baths are taken each day, the first often occurring before breakfast. Men and women bathe in separate groups. Sometimes the men go first and other times the women go first.

The first group to bathe adjusts the water temperature to be "comfortably hot." Protocol insists that each bather drink one-half to one cup of spring water from

the hot tap before entering the bath, thereby allowing an initial adjustment of the body to the hot water. This procedure is considered necessary to derive maximum healing benefits from the springs. Occasionally a Christian prayer is offered before entering the water. Bathers descend by stairs into the pool one at a time. They splash themselves with water to grow accustomed to the temperature and sink to a squatting or sitting position in the 1.1 m (3½ ft) deep water. Typically, bathers sit in a circle with their backs to the walls of the pool and engage in conversation in Inupiaq.

Baths last no longer than 20 minutes. The duration of the bath is prescribed by the Eskimo healers, who take blood pressures, measure body temperature using standard thermometers and evaluate the general health of their patients.[29] During the bath stretching and limbering exercises are done, including cycling in place, arm rotations and modified knee bends. An Eskimo healer of the same sex accompanies the bathers to treat aches and pains. Red and inflamed areas are rubbed firmly to assist circulation. Necks are manipulated by rubbing straightened fingers from the top to the bottom of the neck. Bathers submerge their heads opening their eyes underwater as a soothing eye wash. Often the taps are adjusted to continually warm the pool until a temperature is achieved that can be withstood only by keeping perfectly still.

After 20 minutes, bathers ascend the stairs, dry themselves, dress and walk back to the bunkhouse where they get into their sleeping bags or bed rolls to sweat and nap for about an hour. Tang or fruit juice is drunk to replace liquids lost by sweating. Often each group (men or women) prepares the juice while the other group is resting. Meals are prepared and served after the hour-long rest has ended. Women prepare most of the food, which includes traditional Eskimo fare, such as dried reindeer, *ugruk* (bearded seal), seal oil and fireweed tops, as well as groceries from Kotzebue.

When not bathing, eating or sleeping, the participants at this hot springs healing program engage in group activities. They exercise, tell stories, play cards, hunt and make repairs or improvements to the bunkhouse. There is time for the Eskimo medical practitioners to teach each other new techniques as they diagnose and treat their patients who have come to the hot springs. They use traditional Eskimo healing techniques, which have been described elsewhere.[4,6,7] Depending on the illness, treatment may include *ilusiig,* manipulation of the abdomen to diagnose and treat internal problems. In addition, natural resources associated with the hot springs are used for medical treatments. A form of algae found in rivulets near the hot springs is used as a poultice for cuts and infections. After algae are applied, the skin may be wrapped with a plastic bag. Occasionally, the algae are mixed with seal oil, which is known to have a high vitamin A content.

Efficacy of Treatment

Although it is difficult to determine efficacy of treatment by such a small sample, observations of changes in patients' behavior and self-reporting by patients of improvement in their conditions during the week at Serpentine Hot Springs indicated pronounced improvement in half the patients and some improvement in all cases for which there were data. In no case was the physical condition complicated or exacerbated by the hot springs treatment.

Efficacy of the treatment at Serpentine Hot Springs may be attributed to some or all of the following factors: The therapeutic value of the heat or of the minerals in the water, the therapeutic value of associated traditional healing techniques including exercise, massage, manipulation of joints and other practices and the therapeutic value of the psychosocial experience. This last factor merits particular attention here.

The psychosocial experiences of participants at Serpentine Hot Springs involved a complex set of conditions that were characterized by cultural, social and spiritual attributes. The cultural heritage of all but one of the group members was Inupiat (northwest Alaskan) Eskimo, while the other was Yupik (southwest Alaskan) Eskimo. The predominance of Inupiat people in the group created a social situation in which the predominant language was Inupiaq and styles of interaction, as in joking and laughing, were Inupiat in character. The Inupiat culture was also manifest in some of the food that was prepared and eaten.

Participants at this Serpentine Hot Springs healing pilgrimage were removed from their families and their villages for the duration of the treatment program. Yet, they created a warm, supportive social environment for one another. The group spanned several generations. One of the healers brought along her 5-year-old great-grandchild who served the important function of creating a social environment similar to that in Eskimo homes where children are highly valued. Thus the composition of the group was somewhat similar to that of an extended family and seemed to stimulate mutual support. Separation of the sexes for sleeping and bathing created a camaraderie within the sex-based subgroups that may have been intensified by the intimacy of the situation. Group activities, such as bathing, cooking and eating, provided continual opportunities for interaction so that no one was isolated socially at Serpentine Hot Springs.

All of the healing activities were conducted with the assistance and support of the group. Not only the Eskimo medical practitioners, but also other members of the group were assigned tasks related to healing, such as holding a shoulder or leg of a patient whose joints were being manipulated. Participants took an active interest in the physical problems and healing of other members of the group, but they were asked to maintain confidentiality about the illnesses of others when they returned to their villages.

The spiritual component of the psychosocial experience was both formal and inherent. The formal component included prayers offered by persons before entering the pool of hot water and by healers before practicing a particular curing technique. Sunday is always the last full day at Serpentine Hot Springs for the

Maniilaq group, and a religious service is held in the bunkhouse. Each person individually makes a speech in Inupiaq giving thanks for their experiences and improved physical conditions at Serpentine Hot Springs. While prayers were offered in the Inupiaq language, they were typically Christian in content.

The sheer beauty of the Serpentine Hot Springs setting evokes a spiritual response. The rock formations surrounding the valley create an environment that stimulated people to think about powers greater than their own. Spirituality inherent in the aesthetic environment was enhanced by the relaxation and light-headedness brought about by the hot baths. These spiritual components in combination with the supportive social environment produced a transcendental experience for the participants.

Discussion

Evidence suggests that the therapeutic value of hot springs use by the Maniilaq group is enhanced by the interplay of cultural, social and spiritual components. Simple heat treatments or whirlpool therapy lacks this important context: an informal setting, group participation and continuity with traditional cultural patterns. This interplay between the content and context of healing reflects the importance of cultural revitalization to the spirit of the Native people of northwest Alaska. Programs like that sponsored by Maniilaq at Serpentine Hot Springs provide an opportunity for Western-trained physicians to refer patients for physical therapy in a context that is culturally appropriate and meets their psychosocial needs.

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